

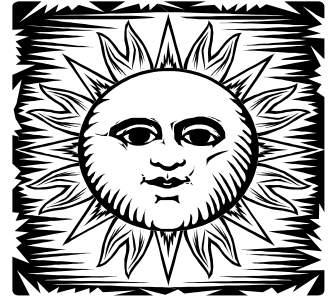
ORGANICS

Landscaping and Gardening for the Planet, Made Easy

by Maggie Coulter

Whether you garden as a hobby or professionally, you can make a difference in the quality of your community's water and air and by taking one or more easy steps to enhance the environmental friendliness of your gardening or landscaping. You'll also be helping to conserve landfill space. The suggestions below start with minor adjustments to your current practices and go all the way to major redesign.

Water, Water, Everywhere, Not! California has an arid climate with limited water resources on which there are many demands. More than 50 percent of urban water is used in landscaping, which makes conserving this precious resource critical. Make sure you aren't overwatering. Signs of overwatering include water runoff and unhealthy plants. Water deeply and less frequently at a rate that the soil can absorb. You can't necessarily rely on the plant label to direct watering needs—experiment and see how the plant does. For more information, see www.owue.water.ca.gov/docs/toolkit.pdf



Make Sure to Mulch. Mulch is an often very underused material in landscaping, yet it is very valuable in retaining soil moisture. Mulch should be laid 3-6 inches deep for water retention and weed suppression. Mulch also needs to be kept a few inches away from the trunk to avoid fungus. A major killer of new landscaping is putting mulch up against the stem of new plants. Potential free sources of mulch include local tree companies (who may be willing to drop off at your house if they are in your neighborhood), utility companies, or local governments who are cutting or trimming trees. You might also consider renting, buying, or sharing a chipper. For more information, see www.ciwmb.ca.gov/Publications/Organics/44302010.pdf



Transitioning the Irrigation System. When watering, you want to cover the root zone of the plants with an adequate, but not excess amount of water. AND, you don't want to be watering areas with no plants (like sidewalks, walking paths, fences, etc.). Sprinklers often put out too much water and water areas besides the plants that need the water. Complicated drip systems with small connectors for watering one plant at a time can get plugged up easily and also may not put out enough water. A system that addresses both plant and gardener needs is one now in use at the Fair Oaks Horticultural Center (see sidebar). This system uses half-inch poly tubing with small holes every 12 to 18 inches. The tubing is laid out as a grid to water the root zone. The system requires a filter and pressure regulators that can be run from a regular hose.



Keep Our Water Clean. Select non-toxic control methods for weeds and insects. Minimize or avoid the use of pesticides, including herbicides and insecticides. Pesticides run off into stormwater systems and pollute local groundwater, rivers, and the ocean. They can also poison small animals, including pets. For more information, see www.ipm.ucdavis.edu/WATER/U/index.

Information in this article was contributed by Master Gardener Program Coordinator Judy McClure and Master Gardener volunteers Candace Schuncke and Susan Post, all of whom help with the Fair Oaks Horticultural Center (see article, Insert-3). For additional resources about reuse and recycling of organic materials including the California Integrated Waste Management Board; see www.ciwmb.ca.gov/Organics.

ORGANICS

Spare the Air and Save Fossil Fuels. Use manual tools whenever possible. Raking and sweeping can actually be faster than using an air- and noise-polluting gas blower, which puts exhaust and dust particles into the air. Use a hand or electric mower instead of a gas one, and get the added benefit of good exercise. Check with your local government about programs through which you can exchange your gas-powered mower for an electric one.



Help Recharge Groundwater. By minimizing runoff from watering as well as rains, you can also help contribute to recharging groundwater. Consider permeable materials for paths and open areas; wood chips, rocks, and permeable concrete. Consider Earth mounds, which can be visual focal points and also promote good drainage.

Picking Plants. When you replace or add plants, consider these guidelines:

1) Keep plants with similar water, sun, and shade needs together; otherwise some will be greatly overwatered or others will be thirsty.

2) Match the size of the space available with the plant you choose, making sure there is enough room for the plant to grow. This will keep down the amount of pruning you need to do, saving you time and reducing green waste.

3) Think about replacing non-native species with native ones that have adapted themselves to thrive in California's arid climate. Check with the local chapter of the California Native Plant Society; www.cnps.org.

4) Consider edible landscaping, including herbs, fruit trees, etc.

5) Consider plants that are attractive to birds and beneficial insects.

6) Select plants to provide variety in every season, including evergreens and plants that flower at different times of the year.



Tips for Planting New Plants: Dig a hole that is twice as wide as the pot the plant is in, but don't make the hole any deeper than the dirt level in the pot, so that the dirt level in the pot is the same as the soil around it. Also, most plants need more water when they are first planted. Those watering needs may decrease when the plant gets established.

Going Organic. Use compost and organic materials rather than chemical fertilizers. Make your own compost (see below) or buy it. Use aged horse manure (check www.CalMAX.org for free manure in your area); it has less salt than chicken or steer manure and smells better too. For more ideas, see www.organiclandscape.com.

Composting to Complete the Cycle: Amend soil with compost that you make yourself. You can compost most household organic waste including paper and food waste along with most yard waste. You can buy or make your own compost bin; some local governments make them available for free. For more about how to compost, see www.ciwmb.ca.gov/Organics/Homecompost. If you don't have yard space for a compost bin, you can compost using worms; see www.ciwmb.ca.gov/Organics/Worms.



ORGANICS

Use Recycled or Reclaimed Materials. You can make raised beds out of used wood or plastic lumber; paths can be made from mulch or reused broken concrete. Check CalMAX, www.CalMAX.org for updated listings and other sources of used materials.

Review Lawn Space. Lawns can take a lot of water and time. The open or play areas they offer may be accommodated in other ways. You can transition to smaller lawn areas by picking out beds to expand. Start with foundation plantings or existing planter beds and make them bigger. If you want to maintain some lawn, try grass varieties that use less water and don't have to be mowed as often. Dwarf fescue is one possibility. See www.ipm.ucdavis.edu/TOOLS/TURF

An Ounce of Planning is Worth... Before you undertake a major redesign, thorough research and good planning are highly recommended. Much information is available in your local library, bookstores, and of course online. University of California Cooperative extension, www.ucanr.org, offers classes and free help from trained Master Gardeners. Many communities also have educational gardens like the Fair Oaks Horticultural Center (see below); check with local park and water districts to see if there is one in your community. To deepen your knowledge about sustainable practices, check out permaculture. See the CalMAX Fall 2003 catalog article on the Occidental Arts & Ecology Center, www.oaec.org.



Be Open to Change. Successful landscaping and gardening will involve trial and error. Be willing to make mistakes and experiment and of course, be sure to relax and enjoy your garden and landscape!

Fair Oaks Horticultural Center

A showcase for all types of gardening and water-efficient landscaping, the 1-acre Fair Oaks Horticultural Center, located on Temple Park Road in Fair Oaks, offers many workshops. The Center is adjacent to the Fair Oaks Community Garden, also 1-acre, which started in 1981 and today has 43 garden plots tended by private individuals. The Center has several distinct features: a perennial walkway, Mediterranean highlights; common variety garden; native plant display; and fruit-bearing plants including espalades, blueberries, raspberries, pears, boysenberries, apples, grapes.

Sponsored by Sacramento County Cooperative Extension, the Fair Oaks Recreation and Park District, and the Fair Oaks Water District, staffing and classes are provided by volunteer Master Gardeners trained through Cooperative Extension. Materials and supplies for the center were donated by Master Gardeners and many local nurseries and businesses.

Contact information:

Fair Oaks Horticultural Center,
c/o U.C. Cooperative Extension
4145 Branch Center Rd,
Sacramento, CA 95827
(916) 875-6913; cesacramento.ucdavis.edu

Photo: Bill Maynard



Community Gardens: Nurturing in Many Ways

by Maggie Coulter

"I've always been a gardener, so community gardening was very appealing to me," says Bill Maynard, Sacramento County master gardener, CalMAX user, and one of the founders of the Sacramento Area Community Garden Coalition. "Community gardens are places where neighbors can come together and help each other raise food and flowers. They are appealing to those who don't have yard space and those who may have their own gardens but want more space and also to be with other people. Community gardens in schools help teach kids about raising food."

"CalMAX is a great resource for community gardens," notes Maynard, who currently has ads for used plastic and clay pots, concrete, lumber, and tools. "Maybe someday we'll be able to recycle the used plastic pots into lumber for raised beds like the Missouri Botanical Garden does in St. Louis." (See: www.mobot.org/gardeninghelp/hortline/messages/3938.shtml).

Evolving Gardens

Sacramento currently has 14 organized community gardens in parks, churches, or schools operated by garden

boards that rent out the plots and handle administrative tasks. All the gardens currently operating have waiting lists to get plots, and all are operated without the use of pesticides or herbicides. Most gardens are on public or nonprofit land, private owners also have created community gardens by inviting others to garden in their yard.

Community gardens have come and gone in Sacramento. One example is a garden started on a vacant lot in the Oak Park neighborhood in the early 1990s by local Americorps volunteers working with neighborhood residents. Compost for the site was donated by the county, and the city erected wrought iron fencing. Today a single-family house sits on the site.

Maynard became involved with community gardens in Sacramento in 1999. His first foray was with the Ron Mandella Community Garden, located on land owned by the State of California and managed by the Capitol Area Development Authority (CADA). CADA, www.cadanet.org, is a Joint Powers Authority between the State of the California and the City of Sacramento. CADA is

Photo by Bill Maynard

authorized to implement the plans and objectives of the 1977 Capitol Area Plan, as directed by the State of California and the City of Sacramento. The garden was over 30 years old when CADA decided to build on the site. The gardeners tried to save the garden but thus far have been unsuccessful.

The Sacramento Parks & Recreation Department has been promoting community gardens by hosting a monthly

ORGANICS

meeting of people interested in gardens. That group eventually became the Sacramento Area Community Garden Coalition, a nonprofit. The coalition is currently under the umbrella of the Sacramento Hunger Commission, a group that addresses hunger and food security issues.

“In a recent poll of people seeking food assistance in Sacramento (from food banks, etc.), 48 percent said they would raise their own food if they had access to a community garden in their neighborhood,” notes Maynard. “In a typical 20 by 20 plot, you can grow up to \$500 worth of vegetables in a year; that’s a lot of food.”

“One of the lessons of the Mandella Garden is the need for public commitments to community gardens,” explains Maynard. “The coalition’s



People who would like to find out about getting a community garden plot in their own community can start by calling their local parks and recreation department. The American Community Garden Association website, www.communitygarden.org, also has an abundance of information about community gardens, including links to some existing gardens. Visitors to the site can also e-mail and ask about gardens in their area.

Photo by Bill Maynard

Peralta Community Garden, Berkeley

For those who want to start their own community garden, the ACGA provides detailed instruction and help with the initial steps. These include: 1) forming a planning committee; 2) choosing a site; 3) preparing and developing the site; 4) organizing the garden; 5) obtaining insurance; 6) setting up a new gardening organization; 7) managing the garden.

“For people in the Sacramento area, we are in the process of setting up a new garden at 5th and W Streets and will need lots of materials and volunteers, so contact us,” says Bill Maynard. As a board member of the American Community Garden Association, he also welcomes questions on community gardens and school gardens in California and the western region.

Contact Information:

Bill Maynard
Sacramento Area
Community Garden Coalition
c/o 3611 Del Paso Blvd.
Sacramento, CA 95838
(916) 508-6025
sacgc@ulink.net
www.saccommunitygardens.org



Utilizing California's Urban Forests

by Maggie Coulter

Over the past two decades, the park, street, and shade trees that cool many California cities and soothe their urban dwellers have been undergoing a shift in both their perceived value and in their appropriate management. Several trends have impacted this shift, including the decline

of the logging industry in California and its concomitant reduction in jobs; the costs of maintaining aging park and street trees; the impacts of planting monocultures of street and park trees; efforts to reduce the volume of waste going to landfills, and perhaps a growing awareness of the need for sustainable practices.

Use of the term "urban forest" reflects this shift in the perception and treatment of city trees. One of California's leaders in promoting the practice of sustainable practices in the urban forest is the California Department of Forestry (CDF). "In the U.S., we put more raw logs trees into the waste stream than are harvested annually. In California, prior to the passage of AB 939 [the California Integrated Waste Management Act of 1989], much green waste, including street and park trees was going to the landfill," explained CDF's Eric Oldar. "Keeping trees and other green waste out of the landfill was an important way for local governments to meet their AB 939 goals of reducing the waste stream. In order to do that, we needed to come up with better uses for that waste."

Cutting & Milling Urban Trees

The branches and small limbs of trees typically have either been chipped and shredded for use as mulch in urban parks and private yards or chopped up as firewood. Little is often done to turn the

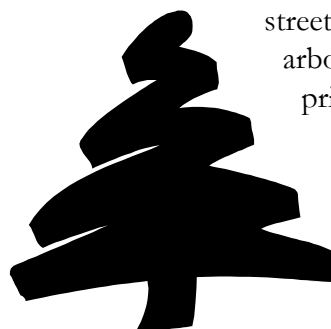
trunks and larger branches into lumber, a much higher value end use. Also, most homeowners and arborists typically cut trees into short lengths for ease in handling. For lumber, pieces needed to be 8-feet or longer.

To facilitate a higher end use for urban trees, in 1996, CDF started the Exploring Urban Forest Sustainability through Recycling Urban Hardwood Tree Resource Recovery program, also called Urban Logs to Lumber. Under this program, CDF made portable wood mills and drying kilns available to community-based nonprofit organizations and local governments. The equipment helped launch local business ventures and other efforts to better utilize urban tree wood that had been removed due to age, damage, or disease factors.

In deciding where the portable sawmills (which cost about \$25,000) could go, CDF looked for access to wood markets. "One of our early locations was Palomar College in San Marcos in San Diego County," explains Oldar. "They already had an established woodworking and furniture-making program that enrolled over 500 students a year. They wanted to offer the students the opportunity to explore the full scope of urban wood utilization, from milling the raw logs to designing and building fine quality wood projects using new exotic hardwood; unavailable in the wholesale market, and also teach the students. In July 2000, we lent them a small portable sawmill and portable kiln and the students began milling trees removed from city

streets and parks, local arborist companies, and private property owners."

Two other community colleges in California have furniture and cabinet making programs. One of



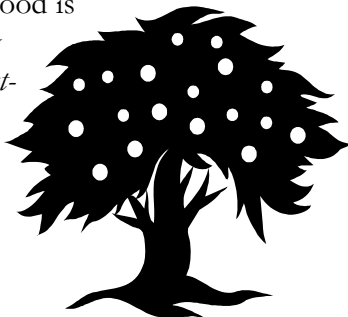
ORGANICS

these, Cerritos Community College, has recently inquired about acquiring a mill and kiln through CDF's loaner program. The other is the furniture program at College of the Redwoods' satellite facility in Fort Bragg.

Other organizations that have used CDF's milling equipment include the Riverside-Corona Resource Conservation District in a joint venture with the City of Riverside, the Inland Empire Chip Chucker Association (a local wood carving guild); West Coast Arborist in Irvine (see below); Pacific Coast Lumber in San Luis Obispo; the City of Lompoc Municipal Tree Operations; and Great Scott Tree Services in Lake Arrowhead.

In addition, in the past 10 years, 600 new portable owner-operated saw mills have emerged in California. "The vast majority of these small mills are portable," explains Oldar. "These mill owners will produce custom lumber for customers who have the logs already, mostly from trees that have been removed (cutting a tree or trees) on their own property." Most of these mills are made by Wood-Mizer, which maintains a database of owner operators. "However, while California is the most advanced state nationwide in fostering the value of urban hardwoods," notes Oldar, "We are still in a fledgling state of developing a fleet of owner operator mills large enough to gather up enough material of useable length to meet the demand of potential buyers."

Of special interest to those seeking more information on milling urban wood is a soft-cover text, newly published, titled *Harvesting Urban Timber—A Complete Guide*, by Sam Sherrill, Linden Publishing, www.harvestingurbantimber.com.



Using The Wood

"A lot of urban wood gets used by wood carvers and wood turners," notes Oldar, "they want unique hardwoods and there are many varieties in urban environments that meet their specification for



beauty and unique wood features. The students at Palomar College are making guitars, clocks, and other unique pieces from recovered urban hardwoods. These pieces are now being put into trade journals so for the first time, they are exposed to an industry that has not seen this material before. They have been entering these pieces for a number of years in the San Diego County Fair at Del Mar Fairground and having them judged. For the first time last year the fair had a special category for projects produced using recycled urban woods."

It is the value of the urban hardwood that makes milling economically viable. "There are several companies that process used soft wood and get a good return, especially for old-growth material like Douglas fir and Coast redwood. However, the value of these soft woods, even the old-growth ones, is about half that of hardwood. Since the costs of buying and operating a mill are fixed, it is the relative value of the product that is going to make or break the economics. It is better to mill the higher value woods."

Making Connections

Linking up those who have trees with those who have sawmills with those who want to buy the cut wood is an important part of making urban forestry work. To help facilitate these connections, CDF funded the establishment of the Urban Forestry Ecosystems Institute, UFEI, www.ufe.org, hosted and maintained by the



College of Agriculture at Cal Poly San Luis Obispo. Through this site, users can find the pertinent businesses and agencies for all aspects of urban forest wood utilization (forestry). The manufac-

turers directory page includes a diagram covering buying and selling logs, rough lumber, processed lumber, and lumber products. So if you have a sawmill and are looking for wood to cut, you could click on “buying logs”; if you have a log (or tree) and want to sell (or give it away) for lumber, click on “selling logs.” If you wanted to buy wood or finished products made from urban lumber, you would click on “buy lumber” or “buy products,” etc. The site also has pictures of some of the wood and trees that are available for milling as well as the lumber and products produced.

One of CDF’s goals is to do more networking among all of the parties involved in urban forestry. They have had success with one of the larger firms, West Coast Arborist, that has adopted a business plan and is now contracting with 23 cities. This company has its own tractors and front-loaders that they can drive into neighborhoods and then take out trees as a whole or in the large pieces needed for milling. According to Oldar, they were the first successful business spin-off in an urban forestry wood utilization business venture.

Urban Forest Management

Another part of the Urban Forestry picture is the management of the “forest” from planning to planting, maintaining, and harvesting. “What you don’t want is an aging urban forest in which blocks have been planted with the same type of tree that are all the same age,” explains Oldar. “You run the risk of losing several of those trees at once, whether from disease or just age.”

“We want urban planners to think about the long-term maintenance and many uses of the urban forest,” explains Oldar. “All trees have a certain life span. You want a diversity of ages and species. And, as those trees get to the age that they may become dangerous and maintenance is very high, then planning replacement of them is appropriate. So the older trees can be harvested and sold, which provides funding for new trees as well as for maintenance costs. By planning ahead, you can ensure that the canopy of park and street trees is maintained. That canopy is important for cooling summer heat as well as for recreation and beauty.”

The UFEI website offers planners a downloadable program to assess their tree inventories. “This system can help urban planners develop a sustainable forest,” explains Oldar. “Through this program, the age, health, and size of trees can be tracked as well as the maintenance costs and the potential revenue streams from harvesting some of the trees. It fosters the understanding of the urban forest as a renewable and potentially economically sustainable system.”

Contact:

Eric Oldar
Regional Field Specialist
Urban & Community Forestry
CA Dept of Forestry and Fire Protection
2524 Mulberry Street
Riverside, CA 92501
Eric.oldar@fire.ca.gov

